

Exhibits 1 through 8
Complete Set

MINERALS, INC.

P.O. Box 1320 PHONE 505 393-2153
HOBBS, NEW MEXICO 88241

April 18, 1986

New Mexico Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

BEFORE EXAMINER STOGNER

Oil Conservation Division

MINERALS Exhibit No. 1

Case No. 8907

Attention: Mr. Jerry Sexton

Re: Emergency Hardship Gas Well Classification

Gentlemen:

As you might be aware, pipeline proration was instituted on wells connected to Phillips 66 Natural Gas Company's gathering system servicing the Eunice Plant. This curtailment affected Minerals, Inc., Llano '34' State Com. No. 1, East Grama Ridge Morrow Field, located in Unit I, Sec. 34, T21S, R34E, Lea County, New Mexico. Past production history indicates that this well will 'log off' during a shut in and we have had extreme difficulty in re-establishing production. It is believed that if this well is allowed to 'log off' now in its advanced stage of depletion, Minerals, Inc. will have to abandon this Morrow zone with an estimated remaining gas reserves of .850 BCF.

Evidence of the problem was first brought to the NMOCB attention on September 17, 1981. At that time, Minerals, Inc. requested approval to flow the Llano '34' State, Com. No. 1 at a reduced volume during Phillips Wilson Plant shut down so that future production would not be jeopardized (see attached letter). Further evidence, as indicated in the attached Daily Activity Reports, shows the difficulty of re-establishing production after the well was found to be 'logged off' in December, 1983. Saleable production was not re-established until July 7, 1984. During this time, the well was worked over, acidized twice, swabbed continuously and a compressor installed to help overcome pipeline pressure. Due to the possible loss of this Morrow zone, the Llano '34' State Com. No. 1 has never been shut in until the recent proration.

Since proration was instituted on March 10, 1986, Minerals, Inc. has made every attempt to minimize underground waste by (1) flowing the well to the atmosphere at reduced volumes and (2) shutting the well in for short periods of time, then opening it up to the atmosphere to unload. Success has been minimal.

The Llano '34' State Com. No. 1, will no longer build up to its original SITP of 760 psig, but only to 580 psig. Maximum gas volume has dropped off from 520 MCFPD to 350 MCFPD, indicating a loss of productivity after shut in periods. As of yet we have been unable to determine the minimum gas volume required to keep the well from 'logging off', but believe it is in the 200 to 400 MCFPD range.

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Mr. Jerry Sexton
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Phillips 66 Natural Gas Company has indicated to Minerals, Inc. that they will gather our gas at a reduced volume if the well is classified as a hardship well in order to prevent underground waste. Therefore, Minerals, Inc. respectfully requests the NMOCDD approval to classify the Llano '34' State Com. No. 1 as a hardship gas well.

Very truly yours,

MINERALS, INC.


Al Klaar

AK/TDT:jb

Attachments

xc: Mr. Donald L. Garey

Minerals File No. MI.04.69.86

Llano Engineering File No. 4.11.86

MINERALS, INC.

P. O. Box 1320 PHONE 505 392-2153

HOBBS, NEW MEXICO 88240

G. W. EDWARDS
VICE-PRESIDENT

September 17, 1981

New Mexico Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

Attention: Mr. Jerry Sexton

Gentlemen:

We have been informed by Phillips Petroleum Company that a 5-day shutdown at their Wilson Plant will start on September 28, 1981. Minerals, Inc.'s Llano "34" State No. 1, East Grama Ridge Morrow Field, located in Unit I, Section 34, T-21-S, R-34-E, Lea County, New Mexico, is one of the wells connected to this plant. The well is presently capable of flowing 2,250 MCF and 24 barrels of total fluid per day. Past producing history indicates that this well will log-off during a shut-in and we have had difficulty in reestablishing production.

Minerals, Inc. respectfully requests the OCD's approval to restrict the daily gas volume to 700 MCFPD and flare and burn-off this volume during the proposed Wilson Plant shutdown to allow the subject well to remain in a flowing status and not jeopardize its future producing capability.

Very truly yours,

MINERALS, INC.

G. W. Edwards
G. W. Edwards *AK*

AK/pk

xc: Donald L. Garey
GWE

Minerals File No. MI9.124.81

SUBJECT FILE

"34" Well File

MINERALS, INC.
DAILY ACTIVITY REPORT
LLANO "34" STATE COM. #1

12-13-83 Lower String: MIRU McCasland Services. TP-0 psig. FL-9000'. Swabbed 15 bbls. wtr. to tank bttv. Fluid scattered.

12-14-83 Lower String: TP - 110 psig. Blew well down. FL-10,000'. Swabbing to tank bttv. Could not get below tight spot @ 10,500'± w/1.900" under-sized swab cups. Removed cups. TIH w/knuckle jt. mandril w/1.875"no-go to 12,700' w. no problem. TIH w/1-1.900" swab cup & swabbed fluid f/ 12,800'. Could not work past 10,500' late in day. Swabbed total 5 bbls. wtr. to tank bttv. Fluid scattered.

12-15-83 Lower String: TP - 50 psig. Blew well down. FL-9600'. Could not work past tight spot @ 10,500'. Swabbed total 1 bbl. wtr. RD.

12-18-83 Lower String: Opened lower tbv. string & bled tbv. to 0 psig. CI.

1-07-84 Lower & Upper String: Upper & lower tbv. strings stabilized @ 1220 psig. Opened lower string & recorded tbv. pressures as follows:

	Lower Tbv.	Upper Tbv.	
9:00 AM	1220	1220	(opened lower string)
9:05 AM	420	1150	
9:10 AM	220	920	
9:15 AM	180	760	
9:20 AM	120	660	
9:25 AM	70	600	
9:30 AM	50	560	
9:45 AM	0	520	
10:00 AM	0	520	
11:00 AM	0	580	
12:00 PM	0	610	
2:30 PM	0	680	
4:30 PM	0	700	
6:00 PM	0	720	

STRINGS COMMUNICATED

1-12-84 Lower String: MIRU Jarrel Services. TIH w/1.843" gauge ring, jars, wt. bar on slick line & tabbed Baker "F" Nipple @ 12,800'. TOH. TIH w/ Baker 1.81" FSG blanking plug & set plug in "F" Nipple @ 12,800'. TOH. FL-9100'.
Upper String: TIH w/1.906 gauge ring, jars, wt. bar on slick line & tagged knucke jt. mandril w/cups on top of sliding sleeve @ 10,521'. TOH. TIH w/ Otis 1.85" DD BP & set plug in collar, 2 jts. above sliding sleeve @ 10,466'±. TOH. No fluid in upper string.

1-13-84 Lower String: MIRU McCasland Services. FL-8300'. Swabbed total of 12 bbls. wtr. to tank bttv. Swabbed f/12,600'. Well dead RD.

2-03-84 Lower String: MIRU McCasland Services. TP - 80 psig. FL-7600'. Swabbed total 4 bbls. wtr. to tank bttv. Swabbed f/12,600'. RD.
Upper String: Loaded upper string w/41 bbls. 2% KCL fresh wtr. & tested Otis BP w/200 psig @ surface for 5 min. Held OK.

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- 2-04-84 Lower String: Halliburton acidized Morrow "A" zone w/1000 gal. 10% HCL acid & 1000 gal. methanol blend containing 4 gal. HAI-50 (corrosion inhibitor), 2 gal. LoSurf 259 (surfactant), 1 gal. Musol (mutual solvent) & 3 gal. Enwar 288 (wtr. recovery additive) foamed to 70 quality w/N₂. Pumped 32,000 SCF N₂ pre-treatment pad & followed treatment w/80,000 SCF N₂ flush. Treatment avg. 2400 SCF N₂ per bbl. of liquid. Total treatment & flush contained 5200 SCF N₂ per bbl. of liquid. Max. treatment pressure 5100 psig, avg. treatment pressure 3400 psig., avg. inj. rate of 1.9 BPM total consisting of .6 BPM liquids & 1.3 BPM N₂, ISIP 5100 psig, 1 min. SIP 5000 psig, 5 min. SIP 4900 psig, 10 min. SIP 4750 psig, 15 min. SIP 4600 psig, 30 min. SIP 3600 psig. RD Halliburton. Opened well @ 11:30 A.M. GTS @ 3:00 P.M. Avg. flowing pressure 0-15 psig. GTSTM. Well dead 10:00 P.M. CI well. Rec. 28 bbls., 20 bbls. left to be recovered.
- 2-05-84 Lower String: TP - 75 psig. Opened well. Well flowing GTSTM. Left well flowing overnight.
- 2-06-84 Lower String: Well dead. MIRU McCasland. FL-8900'. Swabbed total 20 bbls. w/7 trips. Swabbed f/bottom @ 12,800'. Good 6-8 gas flare after each run. Rec. load. Left well flowing overnight.
- 2-07-84 Lower String: Well flowing 1-3' flare, TP 0-15 psig.
- 2-08-84 Lower String: FL-8900'. Swabbed total 15 bbls. wtr. plus some condensate w/6 trips. Swabbed f/bottom @ 12,800'. Good 8-10' gas flare after each run. Well appears to load up w/fluid each 1-1½ hrs. CI well overnight.
- 2-09-84 Lower String: TP-100 psig. FL-10,200'. Swabbed total 20 bbls. wtr. plus some condensate w/6 trips. Swabbed f/bottom @ 12,800'. Good 8-10' gas flare after each run, condensate increasing. Well still loading up w/fluid. Lost 3' jars, 2' ball type swab mandril w/cups & 1.875" no-go in tbg. - 1 1/16" pin & 1½" body looking up f/jars. CI well.
- 2-10-84 Lower String: TIH w/1 29/32" O.D. overshot w/1½" grapple & could not get below tight spot @ 10,800'. TOH. TIH w/1 25/32" O.D. friction hold tool to top of fish @ 12,800'±. Could not get hold of fish. TOH. RD McCasland. FL - 10,200'.
- 2-12-84 Upper String: MIRU Jarrel Services. Retrived OTIS 1.85" DP BP set @ 10,466 ±. RD Jarrel Services.
- 2-14-84 MIRU Clarke Well Service. Pumped 100 bbls. 2% KCL wtr. down upper string to kill well. Removed wellhead. Released upper string. Installed 7 1/16" - 10,000 x 6" 1500 series spool & 1500 series BOP.
- 2-15-84 TOH w/upper string & laid down 338 jts. 2 3/8" O.D. 4.7# N-80 tbg. DID NOT RECOVER KNUCKLE Jt. W/SWABS. Picked up on long string & attempted to work Baker Model 47D4 A-5 dual pkr. loose when wt. indicator hose gave way.
- 2-16-84 Repaired wt. indicator. Attempted to release Baker dual pkr. Pulled & worked tbg. 30,000# above wt. Lost 10,000#. Turned tbg. to left & attempted to release on-off tool above Model "D" w/no results. Turned tbg.

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to right & attempted to release seal assembly f/ Model "D" w/no results. RU Rotary Wireline. Ran free point 100% free above dual pkr 50% free below dual pkr & 35% free above Model "D". Tagged jars, swab mandril w/cups @ 12,842'. Not getting any torque below dual pkr to release on-off or seal assembly. TIH w/chemical cutter on wireline when wireline started to unravel. RD Rotary.

- 2-17-84 RU new Rotary Wireline truck. TIH w/chemical cutter on wireline & cut 2 3/8" O.D. tbg. below blast jts. @ 12,841'. TOH w/cutter. Pkr still stuck. Worked pkr loose & TOH w/lower tbg. string. Rec. 6.12' of 2 3/8" tbg - 23.04' 2 3/8" O.D. N-80 tbg. fish looking up. Knuckle jt. mandril w/cups in upper string found lodged inside pkr.
- 2-18-84 TIH w/ 4 5/8" O.D. Bowen full opening overshot w/2 3/8" rt hand grapple. Shut down due to high winds.
- 2-19-84 Finished TIH w/4 5/8" O.D. Bowen full opening overshot on 2 3/8" tbg. & latched onto fish. RU Rotary Wire Line. TIH w/ 1 29/32" overshot, w/ 1 1/2" grapple & tagged fish @ 12,852'. No recovery. TIH w/1 3/4" O. D. sand pump bailer & recovery several pieces of pkr. rubber. TIH w/1 29/32" overshot w/1 1/2" grapple. No recovery. FL-4500'.
- 2-21-84 TIH w/1 29/32" overshot w/1 5/8" grapple. No recovery. TIH w/1 3/4" impression block - not getting down on fish. Still tagging (tight spot?) @ 12,852'. Attempted to turn fish to left to release on-off tool w/no results. Turned to rt & released grapple, overshot. TOH. Started in hole w/SN, Baker Model "R" double grip pkr. on 2 3/8" O.D. N-80 tbg.
- 2-22-84 Finished TIH W/Baker Model "R" double grip pkr on 412 jts 2 3/8" O.D. N-80 tbg. & set pkr @ 12,692' w/3 jts. tailpipe, SN below pkr. Landed bull plugged mandril in upper string. Installed wellhead & tested to 10,000#. Held OK. Laid flowlines to pit & to frac tank-270 bbls load left to be recovered. RD CLARKE.
- 2-23-84 MIRU Cobra Industries, tagged fluid @ 4600'. Swabbed total 10 bbls. wtr. in ten trips. Pulling f/ SN @ 12,792'. GTS @ 4:30 - GTSTM.
- 2-24-84 TP - 230 psig. Bled tbg. to 0 psig. Tagged fluid @ 12,000'. Swabbed 800' gas cut fluid. Made 4 more trips w/no fluid recovered. No fluid entry into wellbore. RD Cobra.
- 2-28-84 TP - 0 psig. Tagged fluid @ 12,400'. Made 2 trips w/no fluid recovered. RD Cobra. Perf. possibly plugged w/scale from backside. Scale analysis Calcium Carbonate 20%, Iron Sulfide 10%, Iron Oxide 30%, Iron Carbonate 40%. Sample acid soluble.
- 3-02-84 MIRU - Cobra Industries, Halliburton Services. Cobra tagged fluid @ 10,300'. Halliburton acidized Morrow "A" zone w/ 750 gals. MOD Acid 202 containing 2 gals. HAI - 50 (corrosion inhibitor) & 2 gals. Lo surf - 259 (surfactant) followed by 10 bbls. 2% KCl wtr. TIH w/swab & tagged fluid @ 3,000'. Zone not taking acid on vacuum. Halliburton loaded tbg & broke formation down @ 3,700 psig. Max treatment pressure 3700 psig, avg. treatment pressure 2950 psig, avg. inj. rate 2.3 BPM, ISIP-vacuum. Total displacement 50 bbls 2% KCL wtr. TIH w/swab & tagged

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fluid @ 1500'. Swabbed total 14 bbls fluid in 3 trips. Made 4 additional runs with no fluid recovery, tbgs. going on vacuum @ 3000' from surface. TIH w/1.875 no go & tagged SN @ 12,792'. FL-8200'. Total load left to be recovered - 328 bbls.

- 3-03-84 SITP - 0 psig, Cobra tagged fluid @ 8200'. Dropped SV preceded by 10 bbls 2% KCl wtr. Pumped 25 bbls 2% KCl wtr & pressure tested tbgs. w/3800 psig. Held OK. Loaded backside w/195 bbls 2% KCl wtr & tested annulus w/500 psig. Held OK. Swabbed total 34 bbls. FL-9000'. Total load left to be recovered - 329 bbls.
- 3-04-84 SITP - 0 psig. FL-9000'. Swabbed total 8 bbls in 6 trips. Slight gas flare. CI well. Total load left to be recovered - 321 bbls.
- 3-06-84 SITP - 25 psig, bled well down to 0 psig. FL-10,300'. Swabbed 3 bbls in 3 runs. Fished SV. Swabbed 5 bbls in 3 runs. CI well. Total load left to be recovered - 313 bbls.
- 3-07-84 SITP - 25 psig, bled well down to 0 psig. FL-11,000'. Swabbed total 9 bbls in 5 trips. CI well. Total load left to be recovered - 304 bbls.
- 3-08-84 SITP - 50 psig, blew well down to 0 psig. FL - 11,300'. Swabbed total 9 bbls in 5 trips. CI well. Total load left to be recovered - 295 bbls.
- 3-09-84 SITP - 140 psig, blew well down to 0 psig. FL - 10,300'. Swabbed total 11 bbls in 5 trips. Good gas flare after each run. CI well. Total load left to be recovered - 284 bbls.
- 3-10-84 SITP - 250 psig, blew well down to 0 psig. FL - 12,000'. Swabbed total 11 bbls in 7 trips. Good gas flare after each run. CI well. Total load left to be recovered - 273 bbls.
- 3-13-84 SITP - 550 psig, blew well down to 0 psig. FL - 9800'. Swabbed total 8 bbls wtr in 6 trips. Left well flowing to frac tank overnight. Total load left to be recovered - 265 bbls.
- 3-14-84 FTP - 15 psig, well flowing to frac tank. Tagged scattered fluid @ 6000'. Swabbed total 7 bbls in 4 trips. No fluid recovered after 1st run. Left well flowing to frac tank overnight. Total load left to be recovered - 258 bbls.
- 3-15-84 FTP - 15 psig, well flowing to frac tank. Tagged scattered fluid @ 6,500'. Swabbed total 7 bbls water in 5 trips. No fluid recovery after 2 runs. Left well flowing to frac tank overnight. Total load left to be recovered - 251 bbls.
- 3-16-84 FTP - 15 psig, well flowing to frac tank. Tagged scattered fluid @ 5000'. Swabbed total 5 bbls wtr in 6 trips. Left well flowing to frac tank overnight. Total load left to be recovered - 246 bbls.
- 3-17-84 FTP - 15 psig, well flowing to frac tank. Tagged scattered fluid @ 4,500'. Swabbed total 9 bbls in 5 trips. Rec. 8 bbls in first trip.

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Left well flowing to frac tank over weekend. Total load left to be recovered - 237 bbls.

- 3-20-84 FTP - 15 psig, well flowing to frac tank. Well flowed 5 bbls wtr. to frac tank over weekend. Tagged scattered fluid @ 3,000'. Swabbed total 9 bbls in 5 trips. Recovered 8 bbls in first trip. CI well @ 2:00 PM. Total load left to be rec. 228 bbls.
- 3-21-84 SITP - 690 psig, blew well down in 35 minutes. Tagged scattered fluid @ 11,000'. Swabbed total 8 bbls in 6 trips. Left well flowing to frac tank overnight. Total load left to be rec - 220 bbls.
- 3-22-84 FTP - 40 psig, fluid to surface. Recovered 1 bbl wtr overnight. Tagged scattered fluid throughout wellbore & swabbed 6 bbls wtr in 1 trip. RD Cobra. Left well flowing to frac tank. Total load left to be recovered 213 bbls.
- 3-23-84 FTP - 40 psig, fluid to surface. Recovered 5 bbls fluid overnight. Total load left to be recovered - 208 bbls.
- 3-24-84 FTP - 40 psig, fluid to surface. Recovered 8 bbls wtr. Flowing to production heater treater. Total load left to be recovered - 200 bbls.
- 3-25-84 FTP - 55 psig, flowing 160 MCFPD to atm. Recovered 7 bbls wtr. Load - 193 bbls.
- 3-26-84 FTP - 60 psig, flowing 200 MCFPD to atm. Recovered 3 bbls wtr. Load - 190 bbls.
- 3-27-84 FTP - 70 psig, flowing 210 MCFPD to atm. Recovered 2 bbls wtr. Load - 188 bbls. Wtr. analysis indicates sample to be predominately formation water.
- 3-28-84 FTP-70 psig, F220 MCFPD to atm, 0 BO, 6 BW, 24/64" CK
- 3-29-84 FTP-80 psig, F230 MCFPD to atm, 0 BO, 12 BW, 24/64" CK
- 3-30-84 FTP-88 psig, F270 MCFPD to atm, 0 BO, 12 BW, 24/64" CK
- 3-31-84 FTP-95 psig, F320 MCFPD to atm, 0 BO, 12 BW, 24/64" CK
- 4-1-84 FTP-105 psig, F330 MCFPD to atm, 0 BO, 9 BW, 24/64" CK
- 4-2-84 FTP-135 psig, F330 MCFPD to atm, 0 BO, 3 BW, 21/64" CK
- 4-3-84 FTP-140 psig, F340 MCFPD to atm, 0 BO, 9 BW, 21/64" CK
- 4-4-84 FTP-150 psig, F360 MCFPD to atm, 0 BO, 6 BW, 21/64" CK
- 4-5-84 FTP-160 psig, F395 MCFPD to atm, 0 BO, 6 BW, 21/64" CK
- 4-6-84 FTP-210 psig, F390 MCFPD to atm, 0 BO, 6 BW, 18/64" CK

On sales to Phillips pipeline @ 11:00 AM w/400 MCFPD rate, LP-220 psig.

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- 5-20-84 Well dead.
- 5-23-84 TP-220 psig, blew line pressure to 0 psig. MIRU Cobra Industries. Tagged fluid @ 12,400'. Swabbed total 7 bbls wtr. in 5 trips. Pulling from SN. Left well flowing to atm.
- 5-24-84 FTP - 15 psig, well flowing, 50 MCFPD to atm on 24/64" CK. Tagged scattered fluid @ 7,000'. Swabbed total 6 bbls wtr. in 5 trips. Pulling from SN. Left well flowing to atm.
- 5-25-84 FTP - 70 psig, well flowing 125 MCFPD to atm on 24/64" CK. Tagged scattered fluid @ 5,000'. Swabbed total 5 bbls wtr. in 3 trips. Pulling from SN. Left well flowing to atm.
- 5-26-84 FTP - 70 psig, well flowing 130 MCFPD to atm on 24/64" CK. Tagged scattered fluid @ surface. Swabbed total 10 bbls wtr. in 1 trip. Pulled from SN. Left well flowing to atm on 24/64" CK. RD Cobra.
- 5-31-84 FTP - 105 psig, well flowing 415 MCFPD on 30/64" CK to atm. Attempted to flow well down pipeline.
- 6-01-84 Well dead. MIRU Cobra Industries. TP-220 psig, blew line pressure to 0 psig. Tagged scattered fluid @ 10,000'. Swabbed total 2 bbls wtr. in 1 trip. Pulled from SN. Left well flowing to atm.
- 6-02-84 FTP - 65 psig, well flowing 100 MCFPD on 24/64" CK. Tagged scattered fluid @ 8,500'. Swabbed total 5 bbls wtr. in 3 trips. Pulling from SN. Left well flowing to atm.
- 6-05-84 RD Cobra.
- 6-07-84 FTP - 150 psig, well flowing 350 MCFPD on 20/64" CK to atm. Attempted to flow well down pipeline.
- 6-08-84 Well dead, left well open to atm.
- 6-13-84 Set & hooked up Gemini Gas Compressor.
- 6-14-84 MIRU Cobra Industries, tagged scattered fluid @ 8,000'. Swabbed total 3 bbls wtr. in 5 trips. Pulling f/SN. Left well open to atm, well dead.
- 6-15-84 FTP - 0 psig, well dead. Tagged scattered fluid @ 9,000'. Swabbed total 8 bbls wtr. in 7 trips. CTS @ 2:00 p.m., GTSTM. Pulling f/SN. Left well open to atm.
- 6-16-84 FTP - 5 psig, F 40 MCFPD to atm on 20/64" CK. Tagged scattered fluid @ 9,000'. Swabbed total 6 bbls wtr. in 6 trips. Pulling f/SN. Left well flowing to atm.
- 6-17-84 FTP - 60 psig, F 100 MCFPD to atm on 20/64" CK. Tagged scattered fluid throughout wellbore. Swabbed total 4 bbls wtr. in 5 trips. Pulling f/SN. Left well flowing to atm.
- 6-18-84 FTP - 30 psig, F 50 MCFPD to atm on 20/64" CK.

6-19-84 FTP - 0 psig, well dead. Tagged scattered fluid @ 9,000'. Swabbed total 4 bbls wtr. in 6 trips. Pulling f/SN. Left well flowing to atm on 24/64" CK.

6-20-84 FTP - 75 psig, F 225 MCFPD to atm. Tagged scattered fluid throughout well-bore. Swabbed total 3 bbls wtr. plus some condensate in 1 trip. Pulling f/SN. Left well flowing to atm on 24/64" CK.

6-21-84 FTP - 120 psig, F 325 MCFPD to atm on 24/64" CK.

6-22-84 FTP - 115 psig, F 325 MCFPD at atm on 24/64" CK. RD Cobra. Started compressing gas to Phillips pipeline @ 10:00 a.m. w/250 MCFPD rate, LP-220 psig. Well started loading up, compressor not able to handle gas volume. Opened well to atm on 30/64" CK @ 7:00 p.m.

6-26-84 FTP - 100 psig, F 290 MCFPD to atm on 24/64" CK. On sales to Phillips pipeline @ 10:00 a.m.

6-27-84 FTP - 180 psig, F 140 MCFPD. Started compressing gas to Phillips.

6-28-84 Compressor dn. due to high discharge pressure. Opened well to atm, FTP - 50 psig.

6-29-84 TP-0 psig, well dead. MIRU Cobra Industries. Swabbed total 3 bbls wtr. in 7 trips. Pulling f/SN. GTS after 3 trips. Left well flowing to atm.

6/30/84 FTP-95 psig, F 210 MCFPD to atm on 24/64" CK. RD Cobra.

7/1/84 FTP-110 psig, F 370 MCFPD to atm on 24/64" CK.

7/2/84 FTP-130 psig, F440 MCFPD to atm on 24/64" CK.

7/3/84 FTP-140 psig, F490 MCFPD to atm on 24/64" CK.

7/4/84 FTP-150 psig, F540 MCFPD to atm on 24/64" CK.

7/5/84 FTP-160 psig, F580 MCFPD to atm on 24/64" CK.

7/6/84 FTP-170 psig, F600 MCFPD to atm on 24/64" CK. Closed CK to 22/64" @ 10:00 AM, FTP-200 psig, F600 MCFPD to atm.

On sales to Phillips pipeline @ 5:00 PM w/500 MCFPD rate, LP-240 psig, FTP-260 psig on 22/64" CK.

APPLICATION FOR CLASSIFICATION AS HARDSHIP GAS WELL

Operator Minerals, Inc. Contact Party _____

Address P.O. Box 1320 Phone No. _____

Lease Llano '34' St Com Well No. 1 UT I Sec. 34 TWP 21S RGE 34E

Pool Name East Grama Ridge Morrow Minimum Rate Requested 200-400 MCFPD

Transporter Name Phillips 66 Purchaser (if different) _____

Are you seeking emergency "hardship" classification for this well? X yes _____ no

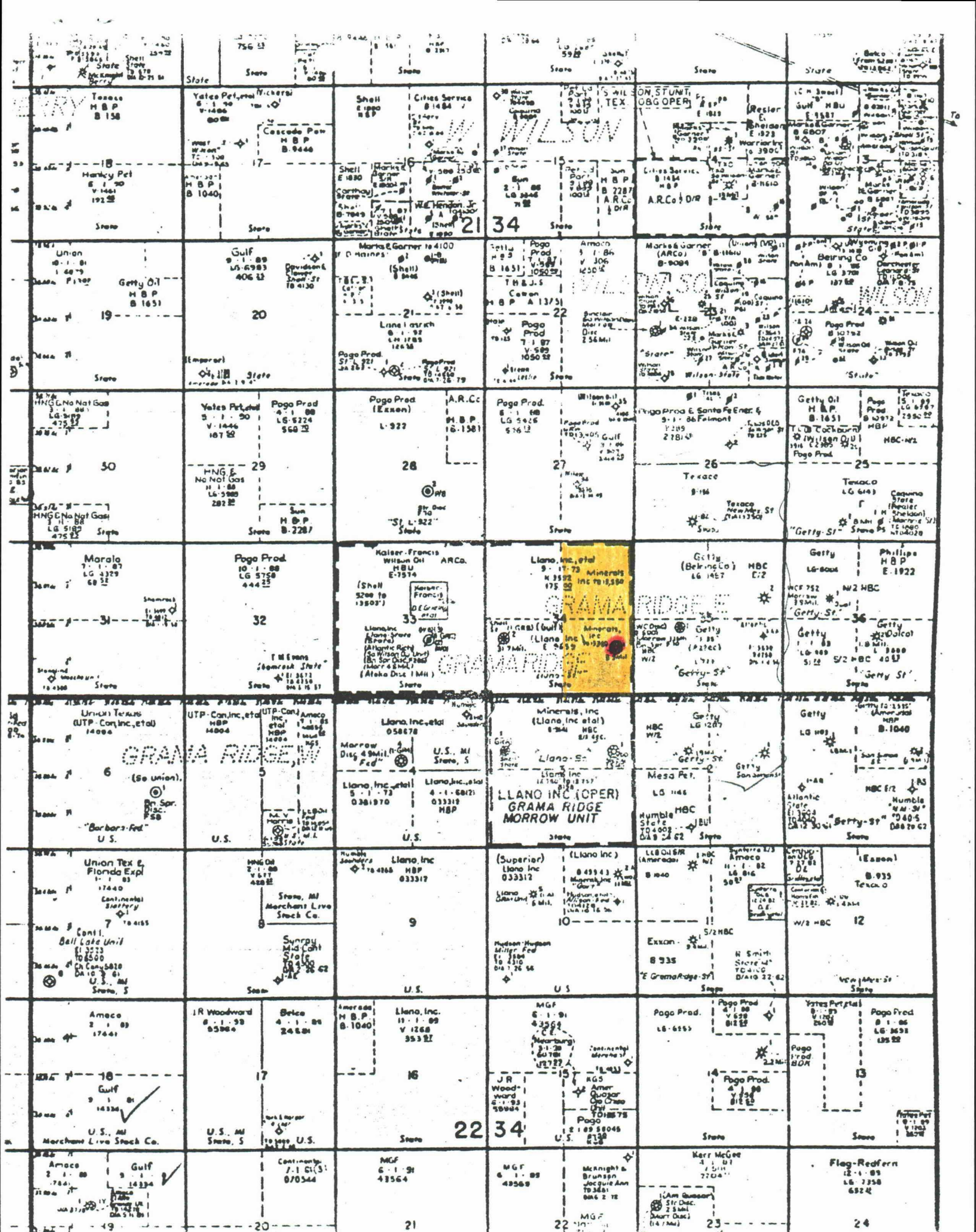
Applicant must provide the following information to support his contention that the subject well qualifies as a hardship gas well.

- 1) Provide a statement of the problem that leads the applicant to believe that "underground waste" will occur if the subject well is shut-in or is curtailed below its ability to produce. (The definition of underground waste is shown on the reverse side of this form)
- 2) Document that you as applicant have done all you reasonably and economically can do to eliminate or prevent the problem(s) leading to this application.
 - a) Well history. Explain fully all attempts made to rectify the problem. If no attempts have been made, explain reasons for failure to do so.
 - b) Mechanical condition of the well (provide wellbore sketch). Explain fully mechanical attempts to rectify the problem, including but not limited to:
 - i) the use of "smallbore" tubing; ii) other de-watering devices, such as plunger lift, rod pumping units, etc.
- 3) Present historical data which demonstrates conditions that can lead to waste. Such data should include:
 - a) Permanent loss of productivity after shut-in periods (i.e., formation damage).
 - b) Frequency of swabbing required after the well is shut-in or curtailed.
 - c) Length of time swabbing is required to return well to production after being shut-in.
 - d) Actual cost figures showing inability to continue operations without special relief
- 4) If failure to obtain a hardship gas well classification would result in premature abandonment, calculate the quantity of gas reserves which would be lost
- 5) Show the minimum sustainable producing rate of the subject well. This rate can be determined by:
 - a) Minimum flow or "log off" test; and/or
 - b) Documentation of well production history (producing rates and pressures, as well as gas/water ratio, both before and after shut-in periods due to the well dying, and other appropriate production data).
- 6) Attach a plat and/or map showing the proration unit dedicated to the well and the ownership of all offsetting acreage.
- 7) Submit any other appropriate data which will support the need for a hardship classification.
- 8) If the well is in a prorated pool, please show its current under- or over-produced status.
- 9) Attach a signed statement certifying that all information submitted with this application is true and correct to the best of your knowledge; that one copy of the application has been submitted to the appropriate Division district office (give the name) and that notice of the application has been given to the transporter/purchaser and all offset operators.

Form C-128
Supersedes C-128
Effective 4-1-69

All distances must be taken to the outer boundaries of the Section.

John W. ...





STATE OF NEW MEXICO RECEIVED APR 24 1986
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

TONY ANAYA
GOVERNOR

April 22, 1986

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

Mr. Al Klaar
Minerals, Inc.
P.O. Box 1320
Hobbs, NM 88240

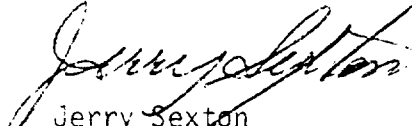
Re: Hardship Gas Well Classification - Rule 411
Llano 34 State Com Well #1-I
Section 34, T21S, R34E
East Grama Ridge-Morrow Gas Pool

Gentlemen:

As requested in your application dated April 18, 1986, the subject well is being granted an emergency hardship gas well classification for a period not to exceed 60 days. The 60-day limitation is imposed due to the volume of gas.

Very truly yours,

OIL CONSERVATION DIVISION


Jerry Sexton
Supervisor, District I

ed

cc: Mr. R. L. Stamets, Director
Oil Conservation Division
Santa Fe, NM 87504-2088

Mr. Larry Sanders
Phillips 66 Natural Gas
Odessa, TX 79762

BEFORE EXAMINER STOGNER
Oil Conservation Division
MINERALS Exhibit No. <u>2</u>
Case No. <u>8907</u>

MINERALS, INC.

P.O. Box 1320 PHONE 505 393-2153

HOBBS, NEW MEXICO 88241

April 22, 1986

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. R.L. Stamets, Director

Re: Application for Hardship Gas Well
Classification
Llano '34' State Com. No. 1
East Grama Ridge Morrow Field
Unit I, Sec 34, T21S, R34E
Lea County, New Mexico

Gentlemen:

Minerals, Inc. respectfully requests a hearing to be docketed for June 11, 1986,
to consider our application for a hardship gas well status for the subject well.

Very truly yours,

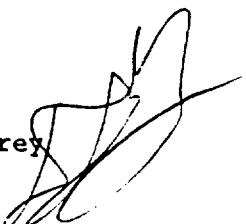
MINERALS, INC.



Al Klaar
Vice President

AK/TDT/rbs

xc: Mr. Donald L. Garey



Minerals File No. MI.04.73.86
Llano File No. Engr. 04.15.86

4.22.86
SUBJECT FILE
AK

A SUBSIDIARY OF HOUSTON NATURAL GAS CORPORATION

APPLICATION FOR CLASSIFICATION AS HARDSHIP GAS WELL

Operator Minerals, Inc. Contact Party _____

Address P.O. Box 1320 Phone No. _____

Lease Llano '34' St Com Well No. 1 UT 1 Sec. 34 TWP 21S RGE 34E

Pool Name East Grama Ridge Morrow Minimum Rate Requested 200-400 MCFFD

Transporter Name Phillips 66 Purchaser (if different) _____

Are you seeking emergency "hardship" classification for this well? X yes _____ no

Applicant must provide the following information to support his contention that the subject well qualifies as a hardship gas well.

- 1) Provide a statement of the problem that leads the applicant to believe that "underground waste" will occur if the subject well is shut-in or is curtailed below its ability to produce. (The definition of underground waste is shown on the reverse side of this form)
- 2) Document that you as applicant have done all you reasonably and economically can do to eliminate or prevent the problem(s) leading to this application.
 - a) Well history. Explain fully all attempts made to rectify the problem. If no attempts have been made, explain reasons for failure to do so.
 - b) Mechanical condition of the well (provide wellbore sketch). Explain fully mechanical attempts to rectify the problem, including but not limited to:
 - i) the use of "smallbore" tubing; ii) other de-watering devices, such as plunger lift, rod pumping units, etc.
- 3) Present historical data which demonstrates conditions that can lead to waste. Such data should include:
 - a) Permanent loss of productivity after shut-in periods (i.e., formation damage).
 - b) Frequency of swabbing required after the well is shut-in or curtailed.
 - c) Length of time swabbing is required to return well to production after being shut-in.
 - d) Actual cost figures showing inability to continue operations without special relief.
- 4) If failure to obtain a hardship gas well classification would result in premature abandonment, calculate the quantity of gas reserves which would be lost
- 5) Show the minimum sustainable producing rate of the subject well. This rate can be determined by:
 - a) Minimum flow or "log off" test; and/or
 - b) Documentation of well production history (producing rates and pressures, as well as gas/water ratio, both before and after shut-in periods due to the well dying, and other appropriate production data).
- 6) Attach a plat and/or map showing the proration unit dedicated to the well and the ownership of all offsetting acreage.
- 7) Submit any other appropriate data which will support the need for a hardship classification.
- 8) If the well is in a prorated pool, please show its current under- or over-produced status.
- 9) Attach a signed statement certifying that all information submitted with this application is true and correct to the best of your knowledge; that one copy of the application has been submitted to the appropriate Division district office (give the name) and that notice of the application has been given to the transporter/purchaser and all offset operators.

ILLEGIBLE

AK 4/29/86

50 YEARS



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION



1935 - 1985

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

April 29, 1986

Minerals Inc.
P. O. Box 1320
Hobbs, New Mexico 88240

Attention: Al Klaar

Re: Llano "34" State Com. No. 1, East Grama Ridge
Morrow Pool, Unit I, Sec. 24, T-21-S, R-34-E,
Lea County, New Mexico

Gentlemen:

Your letter of April 22, 1986 has been received requesting hardship gas well classification for the captioned well. The matter has been placed on the docket for examiner hearing May 28 in order to provide time to enter an order before the expiration of the 60-day temporary classification granted by the Hobbs District Supervisor.

We will expect testimony and evidence in regard to the minimum sustainable flow rate for the well so as to minimize the impact on other wells on Phillips 66 Natural Gas system.

Yours very truly,

VICTOR T. LYON
Chief Petroleum Engineer

cc: Phillips 66 Natural Gas
Odessa, Texas 79762

Hobbs District Office

POGO
GRW 1

27

26

GRAMA
RIDGE
MORROW
FIELD

EAST
GRAMA
RIDGE
MORROW
FIELD

TEXACO
N.M. ST. 1-BZ

34

35

TEXACO
GETTY "35" ST. 2

GRM 2

TEXACO
GETTY "35" ST. 1

MINERALS, INC.
LLANO "34" ST. 1

LLANO, INC.
Grama Ridge Morrow Storage Unit

T-21-S
T-22-S

GRM 1

MINERALS, INC.
LLANO "3" ST. 1

TEXACO
GETTY TWO ST. 1

TEXACO
SAN SIMON ST. 1

3

2

R-34-E

BEFORE EXAMINER STOGNER

Oil Conservation Division

MINERALS Exhibit No. 3

Case No. 8907

MINERALS, INC.

EAST GRAMA RIDGE MORROW FIELD
LEA COUNTY, NEW MEXICO

MINERALS, INC.

P.O. Box 1320 PHONE 505 393-2153
HOBBS, NEW MEXICO 88241

April 18, 1986

Phillips 66 Natural Gas Company
4001 Penbrook
Odessa, Texas 79762

Attention: Mr. Larry Sanders

Re: Emergency Hardship Gas Well
Classification
Llano '34' State Com No 1
East Grama Ridge Morrow Field
Unit I, Sec 34, T21S, R34E
Lea County, New Mexico

Gentlemen:

Please be informed that Minerals, Inc., has filed with the NMOCDC a request for administrative approval to classify the subject well as an emergency hardship well (see attached letter). Should you have any questions concerning this matter, please feel free to call.

Very truly yours,

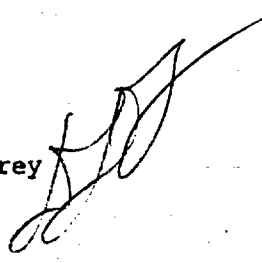
MINERALS, INC.



Al Klaar
Vice President

AK/TDT/rbs

attachment

xc: Mr. Donald L. Garey 

Minerals File No. MI.04.70.86
Llano File No. Engr. 04.12.86

BEFORE EXAMINER STOGNER
Oil Conservation Division
MINERALS Exhibit No. <u>4</u>
Case No. <u>8907</u>

4.21.86
SUBJECT FILE
AK

MINERALS, INC.

P.O. Box 1320 PHONE 505 393-2153
HOBBS, NEW MEXICO 88241

April 18, 1986

To All Offsetting Grama Ridge Operators

Re: Emergency Hardship Gas Well
Classification
Llano '34' State Com No 1
East Grama Ridge Morrow Field
Unit I, Sec 34, T21S, R34E
Lea County, New Mexico

Gentlemen:

Please be informed that Minerals, Inc., has filed with the NMOCD a request for administrative approval to classify the subject well as an emergency hardship well (see attached letter). Your approval will be greatly appreciated.

Very truly yours,

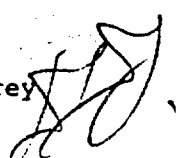
MINERALS, INC.



Al Klaar
Vice President

AK/TDT/rbs

attachment.

xc: Mr. Donald L. Garey 

Texaco, Inc.
P.O. Box 728
Hobbs, New Mexico 88241

Pogo Producing Company
P.O. Box 10340
Midland, Texas 79702

Llano, Inc.
P.O. Box 1320
Hobbs, New Mexico 88241

Minerals File No. MI.04.71.86
Llano File No. Engr. 04.13.86

4.21.86
SUBJECT FILE
AR

MINERALS, INC.

P O Box 1320 PHONE 505 393-2153
HOBBS, NEW MEXICO 88241

May 13, 1986

Phillips 66 Natural Gas Company
4001 Penbrook
Odessa, Texas 79762

Attention: Mr. Larry Sanders

Re: Hardship Gas Well Classification
Hearing
Llano '34' State Com. No. 1
East Grama Ridge Morrow Field
Unit I, Sec. 34, T21S, R34E
Lea County, New Mexico

Gentlemen:

Further to our letter of April 18, 1986 concerning the Emergency Hardship Gas Well Classification of the referenced well, the NMOCD has set an examining hearing for May 28, 1986 for the well (see attached copy of NMOCD letter). This letter constitutes the required notification of that hearing.

Should you have questions regarding the well or hearing, please contact me at the letterhead address.

Respectfully,

MINERALS, INC.



Al Klaar
Vice President

AK:ba
Attachment

xc: Mr. D. L. Garey

MINERALS FILE NO. MI.05.82.86
LLANO FILE NO. ENGR. 05.09.86

RECEIPT OF CERTIFIED
LETTER ON FILE

MINERALS, INC.

P.O. Box 1320 PHONE 505 393-2153
HOBBS, NEW MEXICO 88241

May 13, 1986

TO: ALL OFFSETTING GRAMA RIDGE OPERATORS

Re: HARDSHIP GAS WELL CLASSIFICATION HEARING
LLANO '34' STATE COM. NO. 1
EAST GRAMA RIDGE MORROW FIELD
UNIT I, Sec. 34, T21S, R34E
LEA COUNTY, NEW MEXICO

Gentlemen:

As indicated by the attached copy of the NMOCD letter, an examiner hearing has been set for the referenced well on May 28, 1986. This letter constitutes the required notification of that hearing.

Should you have questions regarding the well or hearing, please contact me at the letterhead address.

Respectfully,

MINERALS, INC.



Al Klaar
Vice President

AK:ba
Attachment

xc: Mr. D. L. Garey

Texaco, Inc.
P. O. Box 728
Hobbs, New Mexico 88241

Pogo Producing Company
P. O. Box 10340
Midland, Texas 79702

Llano, Inc.
P. O. Box 1320
Hobbs, New Mexico 88241

MINERALS FILE NO. MI.05.81.86
LLANO FILE NO. ENGR. 05.08.86

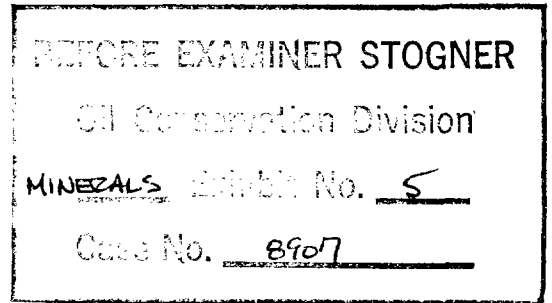
RECEIPT OF CERTIFIED LETTER ON FILE

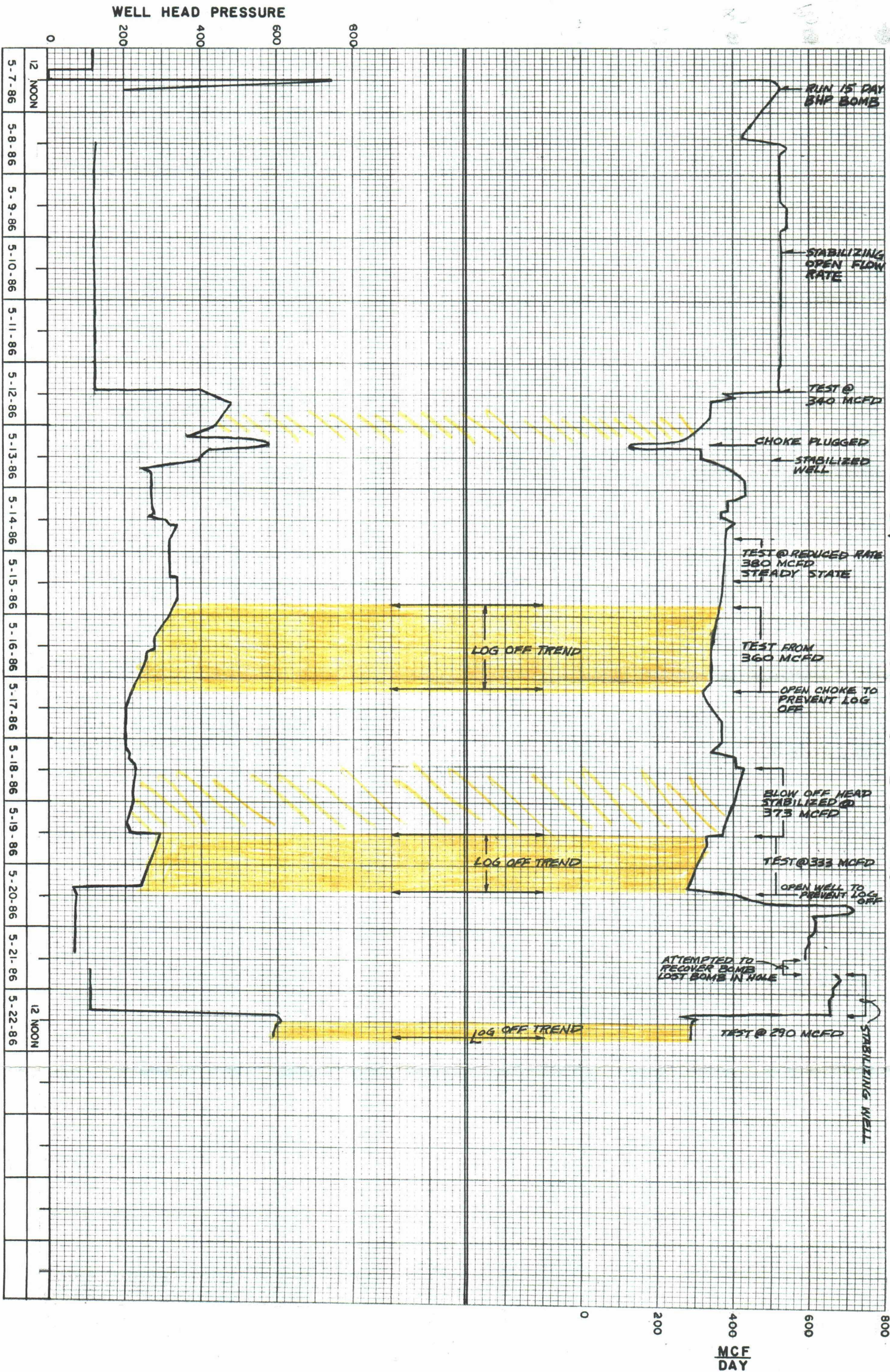
HAND DELIVERED - *Cygn R. Reed* 5-13-86

MINERALS, INC.

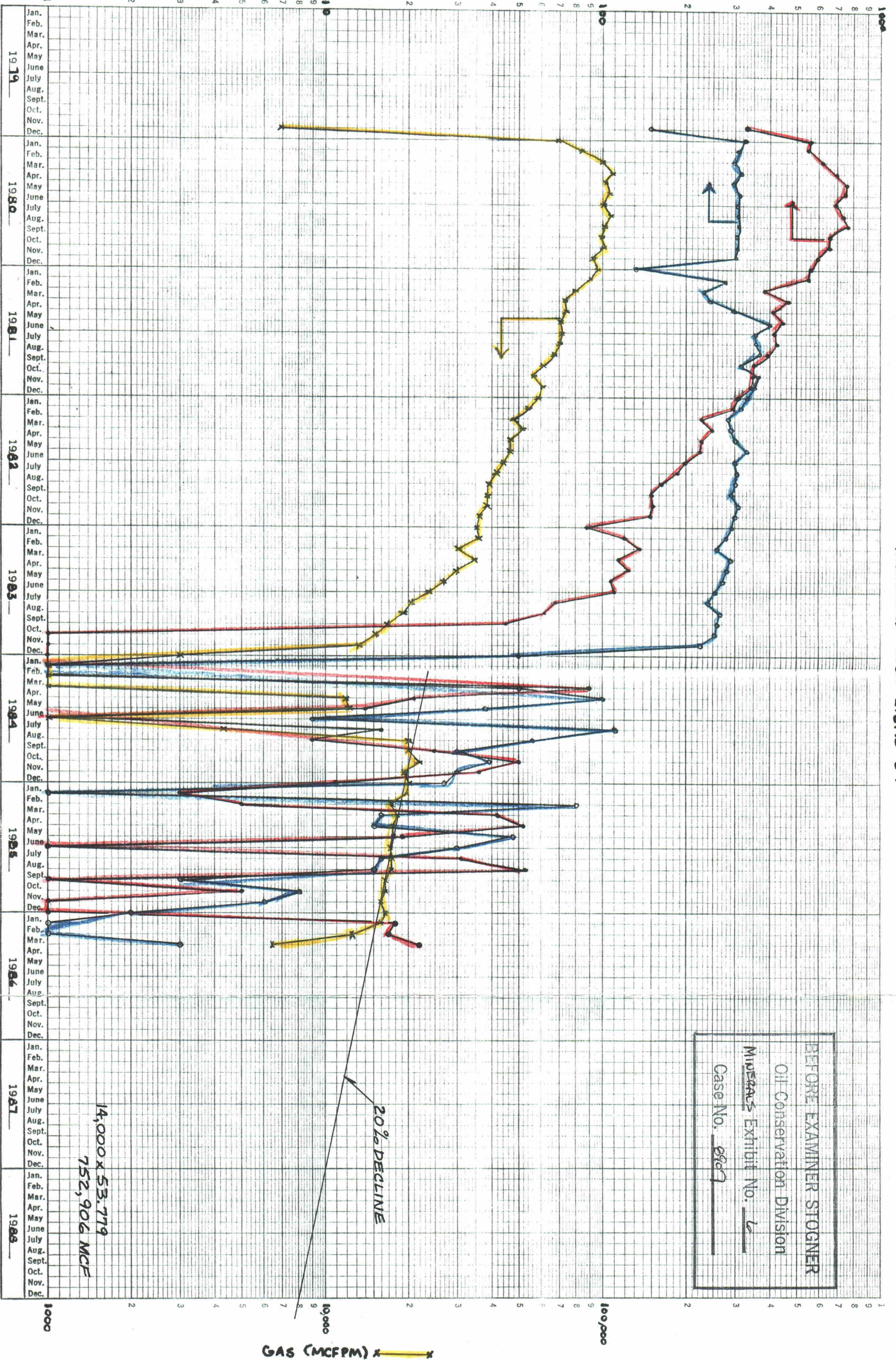
LLANO "34" STATE NO. 1

<u>DATE</u>	<u>REMARKS</u>
3-7-86	Received shut-in notice from purchaser.
3-10-86	FLW to sales line. FTP 130, FLW 520 MCFPD.
3-11-86	FLW to ATM at 520 MCFPD, FTP 170.
3-13-86	S. I. well.
3-14-86	24-hr. SITP - 720 PSIG.
3-15-86	48 hr. SITP - 700 PSIG.
3-16-86	72 hr. SITP - 670 PSIG.
3-17-86	96 hr. SITP - 630 PSIG.
3-18-86	120 hr. SITP - 600 PSIG. Opened well to ATM at 265 MCFPD, FTP 50.
3-19-86	FLW to ATM at 445 MCFPD, FTP 155.
4-1-86	24 hr. SITP - 760 PSIG.
4-2-86	48 hr. SITP - 760 PSIG.
4-3-86	72 hr. SITP - 760 PSIG.
4-4-86	96 hr. SITP - 740 PSIG.
4-5-86	120 hr. SITP - 720 PSIG.
4-6-86	144 hr. SITP - 710 PSIG.
4-7-86	168 hr. SITP - 690 PSIG.
4-8-86	FLW to ATM at 390 MCFPD, FTP 140.
4-9-86	24 hr. SITP - 640 PSIG.
4-10-86	48 hr. SITP - 600 PSIG.
4-11-86	72 hr. SITP - 560 PSIG.
4-12-86	FLW to ATM at 415 MCFPD, FTP 130.
4-15-86	24 hr. SITP - 580 PSIG.
4-16-86	48 hr. SITP - 580 PSIG.
4-23-86	FLW to sales line. FTP 120, FLW 415 MCFPD.
4-27-86	FLW to sales line. FTP 120, FLW 350 MCFPD.





—●— WATER (BWPM)
—●— OIL (BOPM)



MINERALS INC., Llano "34"

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

CIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

GAS WELL SHUT-IN PRESSURE REPORT
1981 YEAR / FORM C-125
*** LEA COUNTY ***

MINERALS INCORPORATED

ECX 132C

PCES

NW 862

P C C L / L E A S E

WELL S I R E C A T E PRESS TIME S I SI-PRESS SI-PRESS PRE TEST
WELL S I R E C A T E PRESS TIME S I SI-PRESS SI-PRESS PRE TEST

GRAMA RIDGE MURKIN, EAST (GAS)

LLANC "34" STATE CCM

LI 34 215 34E PM

***** ACTIVE WELL IS CURRENTLY EXCEPT *****

GRAMA RIDGE STRAWN, EAST (GAS)

LLANC 3 STATE CCM

LI 3 225 34E PS

8-12-81 24/0 363 376.2

LEA LAND ATOKA (GAS)

LLANC 33 STATE

LI 33 215 34E PA

WELL HAS BEEN RECOMMENDED TO THE
GRAMA RIDGE BONE SPRINGS (GAS) PROD.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF
SEE RULE 402.

SIGNATURE

William J. Eng

TITLE

Manager of Eng.

DATE

8-17-81

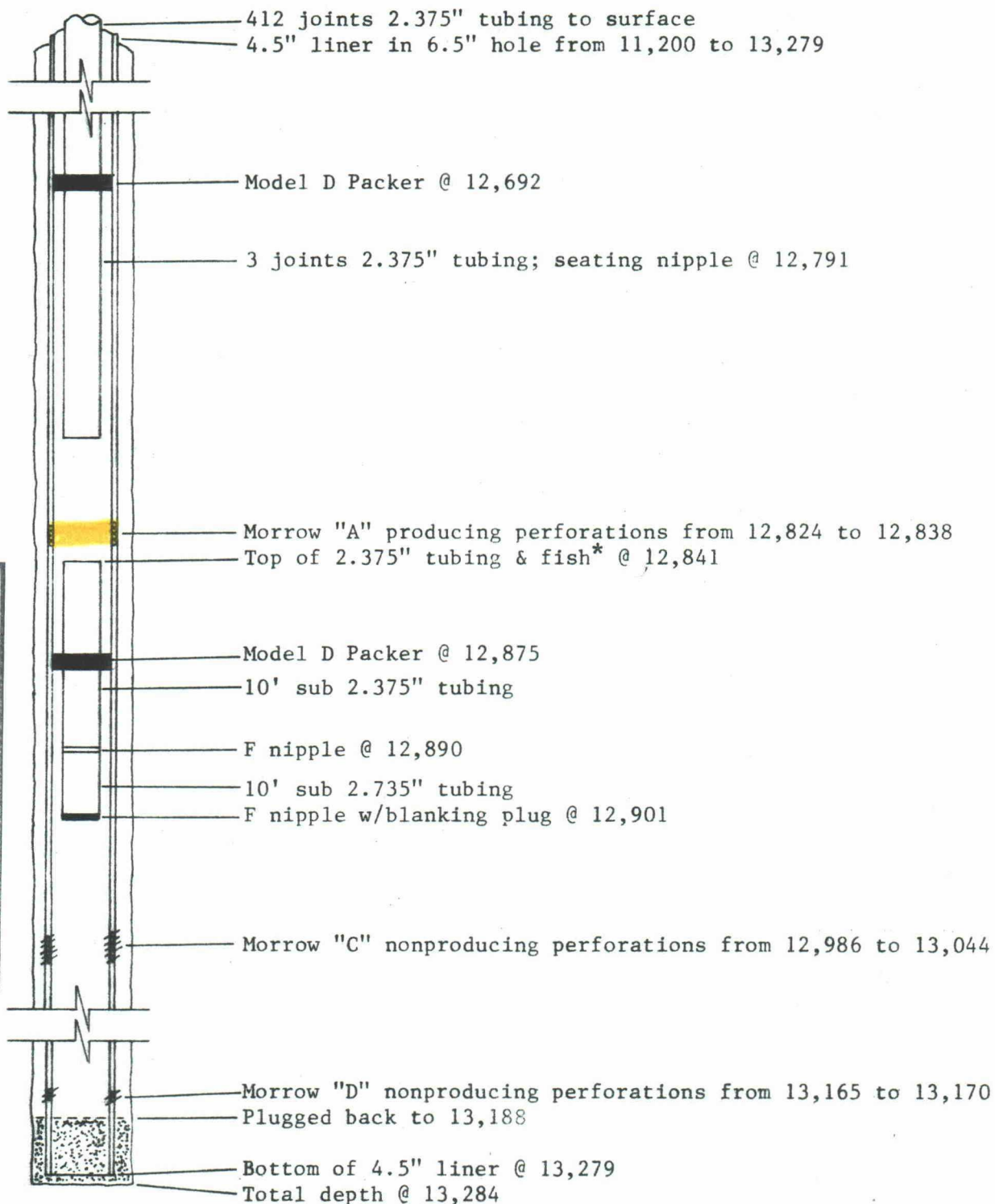
BEFORE EXAMINER STOGNER

Oil Conservation Division

MINERALS Exhibit No. 7

Case No. 8307

MINERALS, INC.
 LLANO "34" STATE COM. WELL No. 1
 EAST GRAMA RIDGE MORROW
 UNIT I, SEC. 24, T21S, R34E
 LEA COUNTY, NM



BEFORE EXAMINER STOGNER

Oil Conservation Division

MINERALS Exhibit No. 8

Case No. 8507

*fish consists of a set of 3' long jars, 2' long mandrel, and 1.875" no-go